



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/917,677	07/31/2001	Shunpei Yamazaki	12732-062001	1190
26171	7590	12/01/2004	EXAMINER	
FISH & RICHARDSON P.C. 1425 K STREET, N.W. 11TH FLOOR WASHINGTON, DC 20005-3500			LEURIG, SHARLENE L	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/917,677	YAMAZAKI, SHUNPEI	
	Examiner	Art Unit	
	Sharlene Leurig	2879	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 October 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2,8-17,19-43 and 45 is/are pending in the application.
- 4a) Of the above claim(s) 8-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,17,19-43 and 45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 24, 25 and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Kojima et al. (6,639,354).

Regarding claim 24, Kojima discloses a light emitting device comprising a metal substrate (Figure 31, element 211) (column 36, line 35), an insulating film (241) of tin oxide (column 36, line 39) over a first surface of the metal substrate, a light emitting element (210, 220, 230) over the insulating film, the light emitting element including an anode, a cathode and an EL material interposed between the anode and the cathode, and a substrate holder (204) under a majority of a surface of the metal substrate opposite the first surface.

Regarding claim 25, Kojima discloses stainless steel as a possible material for the metal substrate (column 36, line 36), and therefore discloses a heat resistive metallic substrate.

Regarding claim 28, Kojima discloses a radius of curvature of convex portions existing on the surface of the substrate, such as the cladding layer (12), of equal to or greater than 1 micron (column 6, line 39).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 20, 22, 23 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yap (6,307,528) in view of Moriyama et al. (6,447,612) (of record).

Regarding claim 2, Yap discloses a light emitting device comprising an insulating film (Figure 3a, element 50) over a substrate having a metallic surface (column 4, line 19), and a light emitting element over the insulating film, the light emitting element including an anode (62), a cathode (54) and an EL material (60) interposed between the anode and the cathode, and a light shielding film (48) provided between the light emitting element and the substrate having the metallic surface and overlapped with the light emitting element.

Yap fails to exemplify the thickness of the metallic-surfaced substrate.

Moriyama teaches a metal substrate for a semiconductor electrical device, wherein the metal substrate has a thickness that falls within the claimed range of 5 to 30

Art Unit: 2879

microns. Moriyama teaches such a thickness of a metal substrate in order to optimize the thinness of the substrate while also optimizing its strength (column 9, lines 34-43).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the metal substrate of Yap to have a thickness within the range of 5 to 30 microns in order to provide a strong yet thin substrate for a semiconductor device, as taught by Moriyama.

Regarding claim 20, Yap discloses the radius of curvature of convex portions on a surface of the substrate, such as the walls, which are at least 10 microns thick, is greater than 1 micron (column 10, line 55).

Regarding claim 22, Yap discloses the light shielding film (48) is formed in contact with the cathode (54).

Regarding claim 23, Yap discloses the cathode is adjacent the light shielding film, wherein "adjacent" means "nearby", and is separated from the light shielding film by the dielectric layer (52).

Regarding claim 45, Yap discloses a thin film transistor (46) is formed over the metallic substrate.

5. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over are rejected under 35 U.S.C. 103(a) as being unpatentable over Yap (6,307,528) in view of Moriyama et al. (6,447,612) (of record) as applied to claims 2, 20, 22, 23 and 45 above, and further in view of Forrest et al. (5,998,803).

Yap discloses a light emitting device having all the limitations of claim 2, including a metal substrate.

Yap fails to exemplify the thickness of the metallic-surfaced substrate.

Moriyama teaches a metal substrate for a semiconductor electrical device, wherein the metal substrate has a thickness that falls within the claimed range of 5 to 30 microns. Moriyama teaches such a thickness of a metal substrate in order to optimize the thinness of the substrate while also optimizing its strength (column 9, lines 34-43).

Neither Yap nor Moriyama disclose the surface roughness of the metal substrate.

Forrest teaches a metal substrate for an EL device within the range of thickness taught by Moriyama (column 7, line 67) and having a smooth surface in order to successfully deposit subsequent layers (column 11, line 47).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a substrate having a surface roughness no greater than one micron, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the metal substrate of Yap to have a thickness within the range of 5 to 30 microns, as taught by Moriyama, in order to provide a strong yet thin substrate for a semiconductor device, and to further modify the metal substrate to have a smooth surface, as taught by Forrest, and to provide a metal substrate having a surface roughness of one micron or less as it has been held to be within the skill of an

Art Unit: 2879

ordinary practitioner of the art to find an optimal range through experimentation, in order to have good adherence to the layers formed thereon.

6. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima et al. (6,639,354) in view of Forrest et al. (5,998,803).

Kojima discloses a light emitting device having all the limitations of claim 24, including a metal substrate.

Kojima fails to exemplify the surface roughness of the metal substrate.

Forrest teaches a metal substrate for an EL device having a smooth surface in order to successfully deposit subsequent layers (column 11, line 47).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a substrate having a surface roughness no greater than one micron, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the metal substrate of Kojima to have a smooth surface, as taught by Forrest, and to provide a metal substrate having a surface roughness of one micron or less as it has been held to be within the skill of an ordinary practitioner of the art to find an optimal range through experimentation, in order to in order to have good adherence to the layers formed thereon.

Art Unit: 2879

7. Claims 30, 31 and 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yap (6,307,528) in view of Koyama (6,380,007) (of record).

Regarding claim 30, Yap discloses a light emitting device comprising an insulating film (Figure 3a, element 50) over a substrate having a metallic surface (column 4, line 19), and a light emitting element over the insulating film, the light emitting element including an anode (62), a cathode (54) and an EL material (60) interposed between the anode and the cathode, and a light shielding film (48) provided between the light emitting element and the substrate having the metallic surface and overlapped with the light emitting element

Yap fails to exemplify a substrate holder under the substrate.

Koyama teaches a light emitting device with a substrate having a metallic surface (column 12, lines 36-46), and a substrate holder (6001) under the substrate in order to combine the display area with the circuitry and power connection (Figure 18B).

Therefore regarding claim 30, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the light emitting device of Yap to have a substrate holder formed under the substrate in order to join the display area of the device with the circuitry and power supply, as taught by Koyama.

Regarding claim 31, Yap fails to exemplify the type of metal used for the substrate.

Koyama teaches a light emitting device having a stainless steel substrate, which is one of the materials defined by the applicant as being a heat resistive metallic material (column 12, lines 36-46).



Therefore regarding claim 31, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the metal substrate of Yap to be formed of stainless steel, as taught by Koyama, in order to disperse heat from the light elements without deforming.

Regarding claim 34, Yap discloses the radius of curvature of convex portions on a surface of the substrate, such as the walls, which are at least 10 microns thick, is greater than 1 micron (column 10, line 55).

Regarding claim 35, Yap fails to exemplify the type of device in which the light emitting device could be used.

Koyama teaches a light emitting device incorporated in a video camera (Figure 23).

Therefore regarding claim 35, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the light emitting device of Yap to be used in a video camera, as Koyama has taught that such a light emitting device may be employed in a video camera.

Regarding claim 36, Yap discloses the light shielding film (48) is formed in contact with the cathode (54).

Regarding claim 37, Yap discloses the cathode is adjacent the light shielding film, wherein "adjacent" means "nearby", and is separated from the light shielding film by the dielectric layer (52).

Art Unit: 2879

8. Claims 17 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yap (6,307,528) in view of Moriyama et al. (6,447,612) (of record), as applied to claims 2, 20, 22, 23 and 45 above, and further in view of Koyama (6,380,007) (of record).

Yap discloses a light emitting device having all the limitations of claim 2, including a metal substrate.

Yap fails to exemplify the thickness of the metallic-surfaced substrate.

Moriyama teaches a metal substrate for a semiconductor electrical device, wherein the metal substrate has a thickness that falls within the claimed range of 5 to 30 microns. Moriyama teaches such a thickness of a metal substrate in order to optimize the thinness of the substrate while also optimizing its strength (column 9, lines 34-43).

Regarding claim 17, Yap fails to exemplify the type of metal used for the substrate.

Koyama teaches a light emitting device having a stainless steel substrate, which is one of the materials defined by the applicant as being a heat resistive metallic material (column 12, lines 36-46).

Therefore regarding claim 17, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the metal substrate of Yap to have a thickness within the range of 5 to 30 microns in order to provide a strong yet thin substrate for a semiconductor device, as taught by Moriyama, and to further modify the metal substrate of Yap to be formed of stainless steel, as taught by Koyama, in order to disperse heat from the light elements without deforming.

Art Unit: 2879

Regarding claim 21, Yap fails to exemplify the type of device in which the light emitting device could be used.

Koyama teaches a light emitting device incorporated in a video camera (Figure 23).

Therefore regarding claim 21, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the metal substrate of Yap to have a thickness within the range of 5 to 30 microns in order to provide a strong yet thin substrate for a semiconductor device, as taught by Moriyama, and to further modify the light emitting device of Yap to be used in a video camera, as Koyama has taught that such a light emitting device may be employed in a video camera.

9. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima et al. (6,639,354) in view of Moriyama et al. (6,447,612) (of record).

Kojima discloses a light emitting device having all the limitations of claim 24, including a metal substrate.

Kojima fails to exemplify the thickness of the metal substrate.

Moriyama teaches a metal substrate for a semiconductor electrical device, wherein the metal substrate has a thickness that falls within the claimed range of 5 to 30 microns. Moriyama teaches such a thickness of a metal substrate in order to optimize the thinness of the substrate while also optimizing its strength (column 9, lines 34-43).

Therefore regarding claim 26, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the metal substrate of Kojima to have a

Art Unit: 2879

thickness within the range of 5 to 30 microns in order to provide a strong yet thin substrate for a semiconductor device, as taught by Moriyama.

10. Claims 29, 38, 39, 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima et al. (6,639,354) in view of Koyama (6,380,007) (of record).

Regarding claim 29, Kojima discloses a device having all the limitations of claim 24.

Kojima fails to exemplify the types of display devices in which the light emitting device may be used.

Koyama teaches a light emitting device incorporated in a video camera (Figure 23).

Therefore regarding claim 29, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Kojima to be used in a video camera, as Koyama has taught that such a light emitting device may be employed in a video camera.

Regarding claim 38, Kojima discloses a light emitting device comprising a metal substrate (Figure 31, element 211) (column 36, line 35), an insulating film (241) of tin oxide (column 36, line 39) over a first surface of the metal substrate, a light emitting element (210, 220, 230) over the insulating film, the light emitting element including an anode, a cathode and an EL material interposed between the anode and the cathode, and a substrate holder (204) under a majority of a surface of the metal substrate opposite the first surface.

Kojima fails to exemplify a thin film transistor on the first insulating film or a second insulating film over the TFT.

Koyama teaches a light emitting device having a metal substrate (column 12, lines 36-46), a first insulating film (4021) over the metal substrate, at least one thin film transistor (4025) over the first insulating film, a second insulating film (4026) over the first TFT, a light emitting element over the insulating film, the light emitting element including an anode (4027), a cathode (4030), and an EL material (4029) interposed between the cathode and the anode, and where the first electrode (4027) provided over the second insulating film is electrically connected with the TFT.

Therefore regarding claim 38, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Kojima to have a thin film transistor formed on the first insulating film, a second insulating layer formed over the TFT in order to electrically insulate the TFT, and a connection between the TFT and the first electrode, as taught by Koyama, in order to drive the light emitting device.

Regarding claim 39, Kojima discloses stainless steel as a possible material for the metal substrate (column 36, line 36), and therefore discloses a heat resistive metallic substrate.

Regarding claim 42, Kojima discloses a radius of curvature of convex portions existing on the surface of the substrate, such as the cladding layer (12), of equal to or greater than 1 micron (column 6, line 39).

Regarding claim 43, Kojima fails to exemplify the types of display devices in which the light emitting device may be used.

Art Unit: 2879

Koyama teaches a light emitting device incorporated in a video camera (Figure 23).

Therefore regarding claim 43, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Kojima to be used in a video camera, as Koyama has taught that such a light emitting device may be employed in a video camera.

11. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yap (6,307,528) in view of Koyama (6,380,007) (of record, as applied to claims 30, 31 and 34-37 above, and further in view of) Moriyama et al. (6,447,612) (of record).

Yap discloses a light emitting device having all the limitations of claim 30, but lacks a substrate holder or exemplification of the type of metal used for the substrate.

Koyama teaches a substrate holder provided under a substrate made of a heat resistive metal such as stainless steel in order to join the display area of the device to the required circuitry and power source.

Neither Yap nor Koyama disclose the thickness of the heat resistive metal substrate.

Moriyama teaches a metal substrate for a semiconductor electrical device, wherein the metal substrate has a thickness that falls within the claimed range of 5 to 30 microns. Moriyama teaches such a thickness of a metal substrate in order to optimize the thinness of the substrate while also optimizing its strength (column 9, lines 34-43).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the light emitting device of Yap to have a substrate holder to join the display to the power source, as taught by Koyama, and a metal substrate formed of stainless steel, as taught by Koyama, in order to disperse heat from the light elements without deforming, and to further modify the metal substrate of Yap to have a thickness within the range of 5 to 30 microns in order to provide a strong yet thin substrate for a semiconductor device, as taught by Moriyama.

12. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yap (6,307,528) in view of Koyama (6,380,007) (of record) as applied to claims 30, 31 and 34-37 above, and further in view of Forrest et al. (5,998,803).

Yap discloses a light emitting device having all the limitations of claim 30, including a metal substrate.

Yap fails to exemplify a substrate holder under the substrate.

Koyama teaches a light emitting device with a substrate having a metallic surface (column 12, lines 36-46), and a substrate holder (6001) under the substrate in order to combine the display area with the circuitry and power connection (Figure 18B).

Neither Yap nor Koyama disclose the surface roughness of the metal substrate.

Forrest teaches a metal substrate for an EL device having a smooth surface in order to successfully deposit subsequent layers (column 11, line 47).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a substrate having a surface roughness no greater than

Art Unit: 2879

one micron, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the light emitting device of Yap to have a substrate holder formed under the substrate in order to join the display area of the device with the circuitry and power supply, as taught by Koyama, and to further modify the metal substrate of Yap to have a smooth surface, as taught by Forrest, and to provide a metal substrate having a surface roughness of one micron or less as it has been held to be within the skill of an ordinary practitioner of the art to find an optimal range through experimentation, in order to in order to have good adherence to the layers formed thereon.

13. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima et al. (6,639,354) in view of Koyama (6,380,007) (of record) as applied to claims 29, 38, 39 and 43 above, and further in view of Moriyama et al. (6,447,612) (of record).

Kojima discloses a light emitting device having a metal substrate.

Kojima fails to exemplify a TFT as part of the device.

Koyama teaches a TFT and a second insulating layer provided on a metal substrate of a light emitting device in order to drive the device.

Neither Kojima nor Koyama disclose a thickness of the metal substrate.



Moriyama teaches a metal substrate for a semiconductor electrical device, wherein the metal substrate has a thickness that falls within the claimed range of 5 to 30 microns. Moriyama teaches such a thickness of a metal substrate in order to optimize the thinness of the substrate while also optimizing its strength (column 9, lines 34-43).

Therefore regarding claim 26, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Kojima to have a thin film transistor formed on the first insulating film, a second insulating layer formed over the TFT in order to electrically insulate the TFT, and a connection between the TFT and the first electrode, as taught by Koyama, in order to drive the light emitting device, and to further modify the metal substrate of Kojima to have a thickness within the range of 5 to 30 microns in order to provide a strong yet thin substrate for a semiconductor device, as taught by Moriyama.

14. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima et al. (6,639,354) in view of Koyama (6,380,007) (of record) as applied to claims 29, 38, 39, 42 and 43 above, and further in view of Forrest et al. (5,998,803).

Kojima discloses a light emitting device comprising a metal substrate, but fails to exemplify a thin film transistor on the first insulating film or a second insulating film over the TFT.

Koyama teaches a light emitting device having a metal substrate (column 12, lines 36-46), a first insulating film (4021) over the metal substrate, at least one thin film transistor (4025) over the first insulating film, a second insulating film (4026) over the

Art Unit: 2879

first TFT, a light emitting element over the insulating film, the light emitting element including an anode (4027), a cathode (4030), and an EL material (4029) interposed between the cathode and the anode, and where the first electrode (4027) provided over the second insulating film is electrically connected with the TFT.

Neither Kojima nor Koyama disclose the surface roughness of the metal substrate.

Forrest teaches a metal substrate for an EL device having a smooth surface in order to successfully deposit subsequent layers (column 11, line 47).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a substrate having a surface roughness no greater than one micron, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the light emitting device of the device of Kojima to have a thin film transistor formed on the first insulating film, a second insulating layer formed over the TFT in order to electrically insulate the TFT, and a connection between the TFT and the first electrode, as taught by Koyama, in order to drive the light emitting device, and to further modify the metal substrate of Kojima to have a smooth surface, as taught by Forrest, and to provide a metal substrate having a surface roughness of one micron or less as it has been held to be within the skill of an ordinary practitioner of the art to find

Art Unit: 2879

an optimal range through experimentation, in order to in order to have good adherence to the layers formed thereon.

### ***Response to Arguments***

15. Applicant's arguments with respect to the standing claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharlene Leurig whose telephone number is (571) 272-2455. The examiner can normally be reached on Monday through Friday, 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

sll



Joseph  
Williams  
